

The MousePen



Operating Manual



The MousePen

Guide To Operations

Version 1.0

For the IBM PC, PC-XT, PC-AT, PS/2 and 100% compatibles

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INTRODUCTION

Congratulations on selecting The MousePen. You will find that The MousePen works with any program designed for use with the Microsoft mouse. It also works with many popular spreadsheets as well as word processors, databases, and other programs.

Please read this manual and follow the instructions to assure proper installation of The MousePen. Should you have any problems with The MousePen after doing so, please contact IMCS technical support for assistance. Use the Technical Support Assistance Questionnaire for the information that will help us be of best service to you.

WHAT YOU NEED TO GET STARTED

Computer

The MousePen works with the IBM PC, PC/XT, PC/AT, PS/2 and 100% compatible computers with a serial port or PS/2 mouse port. You must be using PC-DOS or MS-DOS version 2.0 or above, have 256K of memory, and at least one floppy drive.

Package Contents

You should have received the following;

- The MousePen
- Serial adapter (combination 25 and 9 pin adapter)
- The MousePen driver, Menu Maker, and TelePAINT software
- This manual (Guide to Operations)
- TelePAINT user's manual
- Warranty card

If any thing is missing, please contact your dealer or IMCS.

BEFORE YOU START

Using the README.DOC File

This file contains any information about changes that were made to The MousePen or driver after this manual was printed. To see the contents of this file, you can use a text editor or word processor that can load ASCII files, or you can use the DOS Type command. To do this, put your backup copy of The MousePen distribution disk in Drive A. Make sure you are either in the directory that has your DOS program files or has a path set to it, then type:

TYPE A : README.DOC | MORE [RETURN]

The README.DOC file will be displayed one screen at a time. To see the next screen, press a key. You can also print the file out. Just type:

TYPE A : README.DOC > LPT1 [RETURN]

Substitute the drive letter for A in the above examples if you are using a floppy drive designated as anything other than A, and substitute the port your printer is connected to if it is not LPT1.

From the README file, please note any changes or corrections to this manual since it was printed before proceeding with its instructions.

INSTALLING THE MOUSEPEN HARDWARE

Serial Port Installation

- Step 1: Turn off your computer and disconnect from power source.
- Step 2: Connect the serial adapter onto the end of The MousePen cable. Plug the appropriate adapter end (9 pin or 25 pin) into your serial port and secure firmly. Usually it is impossible to plug The MousePen into a port that is not a serial port because the connectors are different.

You may have more than one serial port on your computer. If this is

the case, you can use any open port as long as it is set as COM1 or COM2. Refer to your computer's manual for the exact location of the serial port(s). The PENTEST program included on your setup disk will help you to determine your port settings.

Step 3: Plug your computer back in to your power source and turn on.

Step 4: Go to driver software installation.

PS/2 Installation

Step 1: Turn off your computer and disconnect from power source.

Step 2: To install The MousePen, just plug the connector at the end of the mouse cable into your PS/2 mouse port. Refer to your IBM PS/2 Guide to Operations manual for the exact location of this port.

Step 3: Plug your computer back in to your power source and turn on.

Step 4: Go to driver software installation.

INSTALLING THE DRIVER SOFTWARE

About The MousePen Driver

The MousePen driver software is an independently developed driver program that enables you to operate programs which were designed to be compatible with a Microsoft mouse driver. The MousePen driver provides the exact same functions as Microsoft's mouse driver MOUSE.COM. It is a program that is loaded once and remains in memory until you reboot your computer, issue the MOUSE /OFF command (explained later), or turn your computer off.

The driver software has two primary functions;

1. Returning The MousePen coordinates and button status to the applications programs.
2. Drawing and maintaining a tracking cursor that will follow the

motion of The MousePen.

Installed correctly, The MousePen driver will be transparent to you.

Hard Disk Installation

Step 1: Make a backup copy of The MousePen distribution diskette. For information on this procedure, refer to your DOS manual.

Step 2: Put distribution diskette into drive A

Step 3: Go to your root directory by typing;

```
C:  
CD\ [RETURN]
```

Step 4:

If you are using The MousePen through a serial port, type;

```
COPY A : MOUSE.COM [RETURN]
```

If you are using a PS/2 mouse port, type;

```
COPY A : PMOUSE.COM MOUSE.COM [RETURN]
```

NOTE: Copy the above statements EXACTLY as you see them, including spaces. You may, however, substitute another drive for A: if you are using a drive other than A.

Step 5: Go to the section on "Testing The MousePen Installation".

Floppy Disk Installation:

Step 1: Make a backup copy of The MousePen distribution diskette. For information on this procedure, refer to your DOS manual.

Step 2: Put the backup copy of your distribution diskette into drive A

Step 3: To install The MousePen driver onto your boot disk, put the disk into drive B

Step 4: If you are using a serial port, type;

COPY A : MOUSE.COM B : [RETURN]

If you are using a PS/2 mouse port, type;

COPY A : PMOUSE B : MOUSE.COM [RETURN]

NOTE: Copy the above statements EXACTLY as you see them, including spaces. You may, however, substitute another drive for A: or B: as appropriate if you are using drive names other than A: and B: respectively.

TESTING THE MOUSEPEN INSTALLATION

Step 1: From your root directory (or disk where the driver is installed), type;

MOUSE [RETURN]

A message should appear saying that The MousePen driver is loaded, and where it has located The MousePen. Be sure that the driver states the correct location of the port you are using.

If the driver reports The MousePen is not present, first try changing the serial port assignment by typing the following;

MOUSE /1 [RETURN] for COM1 serial port

or type;

MOUSE /2 [RETURN] for COM2 serial port

Note which command responds with the message "Driver installed" for future use. This is explained in the next section on Driver Options.

If a message says the driver has not been found, try installing it again, checking your commands carefully.

If you receive a message that the driver has been installed for a PS/2 port and you are using a serial port, you have copied PMOUSE.COM instead of MOUSE.COM. Go back to Step 4 of Driver Installation.

- Step 4: You should run the PENTEST program to be sure The MousePen is installed properly. To run the program, put your backup setup disk in drive A and type:

A : PENTEST [RETURN]

The PENTEST program will put a cursor on the screen which will follow the movement of The MousePen. On the bottom of the screen will be indicators that confirm when The MousePen's POINT and ALTERNATE buttons have been pressed.

When you are satisfied that everything is working properly, press escape to return to DOS. If The MousePen does not appear to be functioning properly, contact IMCS technical support. See Appendix C for assistance.

- Step 5: Once The MousePen driver is loaded into memory you are ready to use your applications program. The driver will remain in memory, ready for use by any applications program, until you reboot your computer, issue the MOUSE /OFF command (as explained in Options), or turn off your computer's power. Remember that if you reboot an applications disk, you will have to reload MOUSE.

- Step 6: Write down here for future use The MousePen driver start up command you are using.

- Step 7: You can add the MOUSE command to your autoexec.bat file so that you will not have to run it each time you turn on your computer or reboot it. To do this, add the line you wrote down in Step 6 above to your autoexec.bat file.

Note: If you are using DOS version 4.0, be sure to enter the MOUSE command line before the DOSSHELL command. Any command entered after the DOSSHELL will not be recognized.

MOUSEPEN DRIVER OPTIONS

The MousePen command line format (syntax description) is as follows:

[DRIVE:] [\PATH] MOUSE [/PARAMETER(S)]

Serial Port Assignment

A command line option can be used to select which COM port The MousePen is connected to. Type:

MOUSE /1 [RETURN] for COM port 1

or type:

MOUSE /2 [RETURN] for COM port 2

MousePen Movement

Four command options are provided to adjust the sensitivity of cursor tracking. Each sensitivity option has a number from 0 to 100 following it. The automatic default setting is 50, which provides the same tracking response as The MousePen hardware. Larger values make the tracking more rapid, lower numbers reduce the sensitivity.

The MousePen has built in dynamic gain which responds to your input by varying the tracking response in relationship to the speed of your movements. This varies the response of The MousePen up to 500 pulses per inch. Using the default setting will give you this gain sensitivity. You can, if you choose, change the gain response setting for up to 1,000 pulses per inch by using the /D command below. Experiment to find the most comfortable setting for you.

For example, type:

MOUSE /S100 [RETURN] for a very speedy MousePen.

Or type:

MOUSE /S13 [RETURN] for a very slow MousePen .

(great for highly accurate cursor pointing).

The command options are:

MOUSE /S	sets both the horizontal and vertical sensitivity
MOUSE /H	sets the horizontal sensitivity
MOUSE /V	sets the vertical sensitivity
MOUSE /D	sets the speed threshold at which the tracking rate doubles

These command line options can be combined together, and they can also be issued after the driver is initially loaded. For example, you can go back and change the sensitivity of the cursor tracking with the /S command option at any time.

Example: A command line for a hard drive using COM1 with a speed setting of 10 and a tracking threshold of 5 would look like this;

C:\MOUSE /S10/D5 [RETURN]

TURNING OFF THE MOUSEPEN DRIVER

You can disable The MousePen driver at any time by typing the command:

MOUSE /OFF [RETURN]

This command releases the COM port The MousePen is connected to and removes it from memory.

TURNING THE MOUSEPEN DRIVER ON AGAIN

You can re-enable The MousePen driver without rebooting your computer by issuing the command;

MOUSE [parameters]

(This is same command you used to turn it on manually or by entering it in your autoexec.bat file).

INSTALLING SOFTWARE FOR THE MOUSEPEN

Since The MousePen is Microsoft compatible, you can use it with any software that supports the Microsoft Mouse. When you run the installation or setup programs for your software, you will be asked what type of input device you are using. If The MousePen is not on the list, just select Microsoft Serial or Bus Mouse if you are using The MousePen through a serial port, or IBM PS/2 mouse if you are using The MousePen through the PS/2 mouse port.

Microsoft Windows, Windows 286, Windows 386, PageMaker

This program is one of the few that does not require that you load The MousePen driver before running it. On the setup program for these programs, select the Microsoft Mouse and correct serial port, or IBM PS/2 mouse if you are using The MousePen through the PS/2 mouse port.

GEM/3 and Ventura Publisher

When you run the GEMPREP program, if using The MousePen as a serial mouse, select Microsoft Mouse and the correct serial port, or the IBM PS/2 mouse if you are using The MousePen through the PS/2 mouse port.

INTRODUCTION TO MENU MAKER

Menu Maker is a software system for using the pointing device with an application program, such as Lotus 1-2-3 or WordPerfect, which is designed to use only the keyboard. Menu Maker provides you with customizable, button-activated "popup" menus which operate "on top of" the application's original control structure. Menu Maker works by translating pointing device motion and button presses into cursor key sequences. Menu Maker is a way to make great programs better, by giving them the convenience of pointing device control.

This manual will explain how to use some of the predefined menus that come with Menu Maker. We include menus designed for the DOS command level, the Lotus 1-2-3 spreadsheet (123.MNU), WordPerfect version 4.2, and DBase III Plus.

The Menu Maker system was designed to be used with programs that do not already provide support for a pointing device. It will not work with programs which already use a pointing device, or which use graphics modes. There are also a few programs which handle the keyboard in non-standard ways, and these may not work with Menu Maker.

Menu Maker is functionally compatible with Microsoft's pointing device Menu language. To use Menu Maker, you need an IBM PC or compatible, IBM PS/2 or compatible, and DOS version 2.0 or later.

If you see a word which you don't understand, try consulting the Glossary which gives definitions for most of the technical terms used in this manual.

On the disk containing Menu Maker, there is a file named README. This file tells about any last-minute changes or bug reports which didn't make it into this manual. If you have trouble following any of the directions in this manual, read this file with the DOS command

MORE < README

for the most current information. This file may also describe new menus which were written too late to be described here, or name changes for the existing menus.

PREWRITTEN MENUS

This section describes how to use the prewritten menus that come with the Menu Maker system. The first section explains how to load a menu into memory with the AMENU.COM program. The following sections explain the details of using the menus provided for DOS, for the 1-2-3 spreadsheet program, and for the WordPerfect word processing program. Note that the filenames of one of the menus may have changed since this manual was printed. If you get the "Menu file not found" message, please check the README file on your distribution disk for information.

THE AMENU.COM PROGRAM

A program called AMENU.COM (hereafter simply called AMENU) is a central part of the Menu Maker program. It is responsible for communication between the pointing device, and the application program. It also provides popup menus, which let the user choose from a list of options. AMENU is a resident program, (also known as a TSR) which means that after you run it, it is installed in memory, and continues working while other programs are run. Resident programs only work with DOS versions 2.0 and up.

Before attempting to use AMENU, it is necessary to have the IMCS driver for The MousePen installed in memory. AMENU will not work without the device driver.

AMENU loads into memory a menu definition file that tells it what the menus will look like and how to behave for a given application. Menu definition files end with a .MNU suffix and are often simply called menus. To install a menu with the AMENU program, you should type the DOS command

AMENU [RETURN]

with the name of the menu definition file. The .MNU suffix is not necessary when specifying the file name of the menu to AMENU.

For example, to use the DOSMENU.MNU file with AMENU, type

AMENU DOSMENU [RETURN]

and the AMENU program will respond with the message "Menu now installed". If it says something else, there has been some error (See the section on AMENU messages). The most common problems are not having The Mousepen driver installed, and missing a menu file.

The first time you use the AMENU program, it will install itself in memory, and reserve a buffer large enough for the specified menu. The next time you use it, it will load the new menu you want to use into the same buffer. If at some point you ask it to load a menu larger than this first menu, AMENU will realize that its buffer is too small, and ask you whether it should start over with a bigger buffer, as follows:

Menu file too large for current buffer size.
Install another copy of AMENU?

Usually, you can just answer Yes, which will waste a little space, but it will work. If you know beforehand that you will run into this situation, you can use AMENU with an additional argument. A slash followed by a number indicates the number of thousands (1000s) of bytes AMENU should reserve for future menus. (You can find out how big a .MNU file is with the DIR command.) For example, to load the menu "TINY.MNU" while reserving space for a 9,500 byte menu, you could type;

AMENU /10 TINY [RETURN]

Once you are done using a given menu, you may want to use another menu, in which case you just use AMENU to load the new menu. However, you may not want to use The MousePen at all, or want to use a program that knows how to use The MousePen without Menu Maker. In either of these cases, you will want to turn off AMENU completely. The AMENU program and its current menu can be disabled by typing;

AMENU OFF [RETURN]

at the DOS command prompt. Note that the AMENU program is still in memory (pulling a TSR out of memory is difficult), but it is no longer "listening" to The MousePen until you use another menu.

Caution: Do not use any other .MNU files other than those supplied on the IMCS distribution diskette or newly compiled .MNU files from the Menu Maker software supplied on the IMCS diskette.

DOSMENU, the DOS Command Menu

The file DOSMENU.MNU is a menu that works at the DOS command level (that is, when you see the DOS prompt). Although most menu definitions are designed to work when an application program (such as a word processor or spreadsheet) is running, DOSMENU is designed for use with the DOS shell. To install this menu, give the DOS command

AMENU DOSMENU [RETURN]

AMENU responds "Menu now installed".

To invoke the DOS Command Menu, click the point button of The MousePen. A menu will pop up at the top of the screen and present these options:

DIRECTORY FORMAT CHKDISK CLS STATS HELP DISABLE QUIT

with the **DIRECTORY** option highlighted by an inverse bar. When you move The MousePen horizontally, you will see the highlight bar jump from item to item, following The MousePen motion. To select an option, position the highlight over the desired item and click a MousePen button.

If you choose the **DIRECTORY** option, you will see another menu which lets you select the source drive. On this menu, the items are arranged vertically, so that you must use forward and backward MousePen motions to position the highlight. After you select the drive, you now go to a final menu and select a file mask which determines what type of files will be shown. After choosing one of the masks, the last menu disappears, the directory command is sent to DOS, and you see the results on your screen.

The **FORMAT** option lets you format one of the floppy drives on your system. Like the previous option, it has submenus that let you specify various options. Formatting a disk destroys ALL of the information on it! Be careful when you use this command not to clobber something you wanted to keep!

The **CHKDISK** option runs the DOS disk checking utility. It also has a submenu for picking a drive to check.

The **CLS** option clears the display screen.

The **STATS** option lets you get information from DOS, such as the date and time, the DOS version, or the current environment strings.

The **HELP** option gives a summary of what each menu choice does.

The **DISABLE** option disables the DOS menu by typing the command "**AMENU OFF**". If you have renamed **AMENU** or **AMENU** is not in the current directory, this command will not work.

The **QUIT** command returns you to the DOS prompt without doing anything. You may also quit by clicking both pointing device buttons at once.

123, THE LOTUS 1-2-3 MENU

The file **123.MNU** is a menu that works with the Lotus 1-2-3 Spreadsheet Program. To install this menu type;

AMENU 123 [RETURN]

The message "Menu now installed" indicates success. Now run the 1-2-3 program. The MousePen will now do different things, depending on which Lotus-1-2-3 mode you are in.

The mode that the program is in is indicated in the upper right corner. You will start out in **READY** mode, where moving The MousePen positions the highlight among the spreadsheet cells. Clicking the alternate pointing device button in this mode lets you edit the contents of the cell (using the keyboard). Clicking the point button brings you into the Lotus 1-2-3 menuing system, at the top menu.

In **MENU** mode, horizontal MousePen motion moves the highlight along the menu bar at the top. Text explaining the currently highlighted option appears directly under the menu. Clicking the point button selects the current option, which is usually another menu. Clicking the alternate button takes you back to where you were before, without selecting anything. If you are at the top level menu, you return to **READY** mode. If you are in a submenu, the alternate button takes you to the next higher menu in the tree.

When you are marking a rectangular block of cells in 1-2-3's **POINT** mode, the point button accepts the presently highlighted area, just like typing the **ENTER**

key, The alternate button, which sets the anchored corner of the rectangle, acts like the period (.) key. In this mode, MousePen movements move the rectangle corner opposite the anchored corner, just like the directional keys on the keypad.

In most other 1-2-3 modes the point button acts like the ENTER key (general meaning: "accept") and the alternate button acts like the ESC key (general meaning: "cancel"). If both the point and alternate buttons are clicked at the same time, the 1-2-3 help box is popped up on the screen. The help box summarizes The MousePen functions in various modes.

WP, THE WORDPERFECT MENU

The file WP.MNU is a menu that works with WordPerfect version 4.2. To install this menu type

AMENU WP [RETURN]

You should see the message "Menu now installed." Now, run the WordPerfect program.

When you are on the main screen of the program, moving The MousePen will move the editor's cursor. The point button is used to toggle Block Mode on and off. When you are in Block Mode, moving The MousePen marks text by highlighting it. Clicking the point button again cancels Block Mode. Clicking the alternate button pops up a menu at the bottom of the screen. This menu will be one of two different menus, depending on whether or not you are in Block Mode.

The menu with Block Mode off has these choices:

CANCEL PASTE FILES PRINT MOVE COMMENT

Cancel Removes the menu and returns you to edit mode.

Paste Copies text from the program's buffer to the current text location of the cursor.

Files Takes you to a submenu which lets you list files on the disk, load or save files, or clear the current file being edited. The list files option